

Serial No. 10/625,772

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~striketrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please AMEND claims 1, 2, 6, 17, 18, 20, 24 and 25 in accordance with the following:

1. (CURRENTLY AMENDED) A non-contact IC card reader/writer device as recited in claim 24, further comprising:

a detector that detects the voltage level of each of the carrier waves received from the non-contact IC card via the antennas; and

the control unit ~~that~~ calculates the location of the non-contact IC card, based on the detected voltage levels detected by the detector.

2. (CURRENTLY AMENDED) The non-contact IC card reader/writer device as recited in claim 24, wherein:

~~and~~

the control unit ~~that~~ alternately drives the antennas, obtains location information from the non-contact IC card, and, based thereon, calculates the location of the non-contact IC card.

3. (PREVIOUSLY PRESENTED) The non-contact IC card reader/writer device as recited in claim 24, wherein:

the antennas are arranged in a matrix on one plane; and

the control unit sequentially drives the antennas, and calculates the location of the non-contact IC card based on the distribution of the locations of antennas that have received a response from the non-contact IC card.

4. (PREVIOUSLY PRESENTED) The non-contact IC card reader/writer device as recited in claim 24, wherein:

the antennas are arranged in a matrix on one plane, and further comprising:

a detector that drives all the antennas at once, and detects the voltage level of each of the carrier waves received from the non-contact IC card via the antennas; and

the control unit calculates the location of the non-contact IC card, based on the voltage

Serial No. 10/625,772

levels detected by the detector and the locations of antennas that have received the carrier waves.

5. (PREVIOUSLY PRESENTED) The non-contact IC card reader/writer device as recited in claim 24, further comprising:

a positioning sensor that optically detects the location of the non-contact IC card; and
the control unit detects the location of the non-contact IC card from the location information of the non-contact IC card detected by the positioning sensor.

6. (CURRENTLY AMENDED) The non-contact IC card reader/writer device as recited in claim 24, further comprising:

Hall elements that are respectively provided to the antennas, and detect changes in field intensity on the plane of the antennas; and

the control unit that detects the location of the non-contact IC card, based on the field intensity changes detected by the Hall elements.

7. (PREVIOUSLY PRESENTED) An input device, comprising:

a non-contact IC card reader/writer device;

antennas that perform transmission and reception of carrier waves between the non-contact IC card reader/writer device and a non-contact IC card;

a detector that detects the voltage level of each of the carrier waves received from the non-contact IC card via the antennas; and

a control unit that calculates the location of the non-contact IC card, based on the detected voltage levels detected by the detector.

8. (CANCELLED)

9. (CANCELLED)

10. (CANCELLED)

11. (CANCELLED)

12. (CANCELLED)

Serial No. 10/625,772

13. (CANCELLED)

14. (CANCELLED)

15. (PREVIOUSLY PRESENTED) The method of detecting the location of a non-contact IC card as recited in claim 25, further comprising:
detecting the voltage level of each carrier wave received from the non-contact IC card through the antennas; and
calculating the location of the non-contact IC card, based on the detected voltage levels.

16. (PREVIOUSLY PRESENTED) The method of calculating the location of a non-contact IC card as recited in claim 25, wherein:
the calculating, further, calculates the location of the non-contact IC card from location information obtained from the non-contact IC card through alternate driving of the antennas.

17. (CURRENTLY AMENDED) ~~The method of calculating the location of a non-contact IC card, recited in claim 25, wherein~~ A method of detecting the location of a non-contact IC card, comprising:
performing the carrier wave transmission and reception with the non-contact IC card through sequential driving of antennas arranged in a matrix on one plane; and
processing signals obtained from carrier waves received by the antennas and calculating the location of the non-contact IC card, based on distribution of the locations of antennas that have received a response from the non-contact IC card.

18. (PREVIOUSLY PRESENTED) ~~The method of calculating the location of a non-contact IC card, as recited in claim 25, further comprising~~ A method of detecting the location of a non-contact IC card, comprising:
performing ~~the~~ carrier wave transmission and reception with the non-contact IC card through simultaneous driving of antennas arranged in a matrix on one plane;
detecting the voltage level of each carrier wave received from the non-contact IC card through the antennas; and
processing signals obtained from carrier waves received by the antennas and calculating the location of the non-contact IC card, based on the voltage levels detected in the detecting

Serial No. 10/625,772

step and the locations of antennas that have received the carrier waves.

19. (CANCELLED)

20. (CURRENTLY AMENDED) A method of detecting the location of a non-contact IC card, comprising~~The method of calculating the location of a non-contact IC card, as recited in claim 25, further comprising:~~

performing carrier wave transmission and reception with the non-contact IC card through antennas;

detecting a field intensity change on the a plane of the antennas with Hall elements corresponding to the antennas; and

processing signals obtained from carrier waves received by the antennas and calculating the location of the non-contact IC card, based on the field intensity change detected with the Hall elements.

21. (CANCELLED)

22. (CANCELLED)

23. (PREVIOUSLY PRESENTED) The method as claimed in claim 24, further comprising:

detecting an input operation performed on a touch pad by an operator; and

outputting input information detected from the touch pad, in response to a request issued from the outside device.

24. (CURRENTLY AMENDED) A non-contact IC card reader/write device, comprising:
antennas that perform transmission and reception of carrier waves between the non-
~~contact~~contact IC card reader/writer device and a non-contact IC card; and
a control unit processing signals obtained from the antennas and calculating a location of the non-contact card.

25. (CURRENTLY AMENDED) A method of detecting ~~the a~~ location of a non-contact IC card, comprising:

performing carrier wave transmission and reception with the non-contact IC card through

Serial No. 10/625,772

antennas of a non-contact IC card reader/writer device; and

processing signals obtained from carrier waves received by the antennas and, based thereon, calculating a location of a the non-contact IC card by the non-contact IC card reader/writer device.